DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

WATER-RESOURCES INVESTIGATIONS REPORT 87-4183
SHEET 3--POTENTIAL WELL YIELDS FROM UNCONSOLIDATED DEPOSITS

EXPLANATION

POTENTIAL YIELD OF WATER TO WELLS

- UNCONFINED AQUIFER, 1 TO 10 GALLONS PER MINUTE--Predominantly fine to medium sand with some silt and pebbles.
- UNCONFINED AQUIFER, 10 TO 100 GALLONS PER MINUTE--Sand and gravel with saturated zone generally less than 10 ft thick, or thicker but with less permeable silty sand and gravel. Yields in areas adjacent to streams may exceed 100 gal/min through pumping-induced infiltration, but these areas are too small to show at this scale.
- UNCONFINED AQUIFER, MORE THAN 100 GALLONS PER MINUTE--Sand and gravel of high transmissivity and with saturated thickness greater than 10 ft. Many such areas are associated with a surface-water source that can provide pumping-induced infiltration.
- CONFINED AQUIFER UNDERLYING UNCONFINED AQUIFER, MORE THAN 100 GALLONS PER MINUTE (from confined aquifer)--An area where relatively impermeable till, very fine sand, silt, or clay lies between a buried and a surficial aquifer.
- CONFINED AQUIFER, MORE THAN 100 GALLONS PER MINUTE--Sand and gravel aquifer overlain by till, very fine sand, silt or clay.

AQUIFERS OF UNKNOWN POTENTIAL

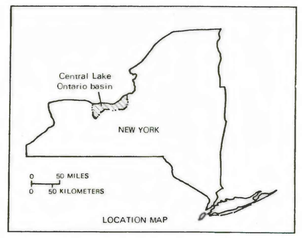
Areas of sand and(or) gravel but with little or no well data to provide estimate of potential well yield.

- G — KAME, KAME TERRACE, OUTWASH, OR ALLUVIUM--Sand and gravel of undetermined thickness or saturation.
- U — CONFINED AQUIFER--Area of lake deposits or till likely to be underlain by sand and gravel aquifers. Depth and saturated thickness of aquifer not determined.

AREAS WITH NO AQUIFERS DELINEATED

The unlabeled areas are underlain by till or by lake clay, silt and silty sand, or by bedrock. Sand and gravel aquifers may be present locally but are too small to show at this scale. Dug wells in till or drilled wells in most bedrock units generally are capable of yielding 0.5 to 5 gal/min. Greater yields are available from some bedrock units such as limestones, dolomites, and some sandstones.

—·—·— BOUNDARY OF THE CENTRAL PART OF THE LAKE ONTARIO BASIN



LOCATION MAP

Base from U.S. Geological Survey
Elmira, NY; PA, 1968 and Rochester, NY-US; Canada, 1961, 1:250,000 scale

0 2.5 5 MILES
0 2.5 5 KILOMETERS

GROUND-WATER AVAILABILITY IN THE CENTRAL PART OF LAKE ONTARIO BASIN, NEW YORK

By
Todd S. Miller and Martha M. Krebs

1988

Sheet 3. Potential Well Yields from Unconsolidated Deposits